

TAXONOMY AND BIOGEOGRAPHY OF ORIENTAL PRASIINI 1: THE GENUS *PRASIA* STÅL, 1863 (HOMOPTERA, TIBICINIDAE)

by

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ABSTRACT

The taxonomic concept of the genus *Prasia* is re-established on account of characters found in the male genitalia. The genus now consists of a monophyletic group of seven species: *P. faticina* Stål, 1863, *P. princeps* Distant, 1888, *P. breddini* n. sp., *P. sarasinorum* n. sp., *P. senilirata* n. sp. and *P. tuberculata* n. sp., all from Sulawesi, and *P. nigropercula* n. sp. from the nearby Muna Island. All species are (re)described and structures of taxonomic importance as well as the whole insects are depicted. A key to the males is presented. Study of (type-)material established the new synonymy of *P. culta* Distant, 1898, with *P. faticina*. *P. hariola* Stål, 1863, and *P. tincta* Distant, 1909, are transferred to other genera of the Prasiini.

INTRODUCTION

The present study of the genus *Prasia* Stål, 1863, is a further contribution to a revision of the tribe Prasiini, started by De Jong & Duffels (1981) and De Jong (1982). Preliminary phylogenetic investigations plead in favour of common ancestry of four Oriental genera belonging to this tribe: *Prasia*, *Lembeja* Distant, 1892, *Arfaka* Distant, 1905, and *Jacatra* Distant, 1905. It is questionable whether the other genera placed in the Prasiini, viz. *Lacetas* Karsch, 1890, *Iruana* Distant, 1905 (both from Africa), and *Sapan-tanga* Distant, 1905 (from South America), do form a monophyletic group together with the four above mentioned genera. Taxonomic and phylogenetic studies of the Oriental genera are to provide a basis for a reconstruction of their distributional history.

The tribe Prasiini is presently distributed, as far as its Oriental members are concerned, in the Philippines, Sanghir, Sulawesi, Java, Lesser Sunda Islands, Misool, New Guinea and Northern Queensland (Australia), and therefore considered an excellent group to test Duffels' idea about the role of Tertiary island arcs in the development of the Cicadoidea fauna of Sulawesi, Moluccas, New Guinea and West Pacific. Duffels (1983a, b) indicated two routes of dispersal: in southern direction from the Philippines to Sulawesi, and in eastern direction from the Philippines to the Moluccas, New Guinea and the

South-West Pacific. The eastern route itself is to be divided in two subroutes: the Inner- and Outer Melanesian Arcs (for a more detailed description the reader is referred to Holloway (1979) and Duffels (1983a)). Study of the Prasiini will extend the area dealt with by Duffels to the Lesser Sunda Islands and Java, while material obtained recently contains representatives from northern Borneo and Sumatera.

The present study of the genus *Prasia* reveals that this very homogenous genus is confined to Sulawesi and the nearby Muna Island.

HISTORY OF THE GENUS

The genus *Prasia* Stål, 1863, was described to accommodate two new species, *Prasia faticina* Stål, 1863, and *Prasia hariola* Stål, 1863. However, Stål (1862) had already referred *Cephaloxys foliata* Walker, 1858, to *Prasia*, thus creating *Prasia* by indication (International Code of Zoological Nomenclature, 1985, Chapter iv, Article 12b, 5). For various reasons¹⁾ I favour suppression of this indication. A request to the International Commission is in preparation.

¹⁾ According to the Rules (International Code of Zoological Nomenclature, 1985, Chapter iv, Article 12b 5), *Cephaloxys foliata* Walker, 1858, is the type-species by monotypy of *Prasia* Stål, 1862. Since *P. foliata* is currently placed in *Lembeja* Distant, 1892 (type-species *L. maculosa* (Distant, 1883)) by Distant (continued overleaf)

Pending the Commission's decision I adhere to common usage (e.g. Distant, 1905) in using *Prasia faticina* as the type species of *Prasia*.

Subsequently Stål (1870) added *P. fatiloqua* Stål, 1870. In later publications *P. princeps* Distant, 1888, *P. culta* Distant, 1898, *P. tincta* Distant, 1909, and *P. vitticollis* Ashton, 1912, were described. The last mentioned species was transferred recently (De Jong, 1982) to the genus *Lembeja*, on account of similarities in the opercula, male genitalia and wing-venation with some New Guinean representatives of this genus.

Furthermore some non-Prasiini have been (erroneously) attributed to the genus *Prasia*.

Metcalf (1963) listed the following species under *Prasia*: *P. culta*, *P. faticina*, *P. hariola*, *P. princeps* and *P. tincta*. *P. fatiloqua* and *P. foliata* were listed as members of *Lembeja*, following Horvath (1913) and Myers (1928, 1929) for *fatiloqua* and Distant (1906) for *foliata*.

My study of the genera *Prasia* and *Lembeja* revealed that generic characters for *Lembeja*, as defined in the rudimentary vein (Distant, 1892) and the fusion of the Cu₂ and A₁ veins in the wing (Karsch, 1890b; Jacobi, 1903; Schmidt, 1925), were unsatisfactory. Breddin (1901) even ignored the existence of *Lembeja* and attributed all species studied by him and known at the time to *Prasia*. On the other hand he created the new genus *Drepanopsaltria* Breddin, 1901, for two *Prasia* species, viz. *P. culta* and *P. princeps*. Distant (1905) separated *Prasia* and *Lembeja* on account of characters in the tegmina. In *Prasia* the 3rd ulnar area is much shorter than the 1st, whilst in *Lembeja* they are more or less of equal length; the 4th ulnar area is much shorter than the radial area in *Prasia*, whilst in *Lembeja* the 4th is about as long or even just a little longer than the radial one. Apart from some borderline cases this is more or less correct, but one must bear in mind, that these characters are only valid when comparing *Prasia* with *Lembeja*.

Here, a new concept for *Prasia* will be presented, readily distinguishing *Prasia* from the other genera of the Oriental Prasiini.

(1906) and other authors, all species of *Lembeja* should be transferred to *Prasia*, so that *Lembeja* becomes a junior subjective synonym of *Prasia*.

All authors have taken *P. faticina* as the type-species of *Prasia*. A valid name for *Prasia* in its common usage, i.e. the concept based on *P. faticina*, could then be *Drepanopsaltria* Breddin, 1901 (type-species *Prasia culta* Distant, 1898, a junior synonym of *Prasia faticina* Stål, 1863). The name *Drepanopsaltria* has not been used as a valid name after 1905.

A NEW CONCEPT FOR THE GENUS *PRASIA*

Monophyly of the genus *Prasia*

In my opinion *P. faticina* (with *P. culta* as a new synonym), *P. princeps*, and five new species, viz. *P. breddini* n. sp., *P. nigropercula* n. sp., *P. sarasinorum* n. sp., *P. senilirata* n. sp. and *P. tuberculata* n. sp., form a monophyletic group.

At first sight the *Prasia* species can be separated from all other Oriental Prasiini by the straight margins of the pronotum collar (in lateral view), which are downgraded in the other genera. However, not much phylogenetic value can be attributed to this feature, since it is found in several other groups of Cicadoidea.

The monophyly of *Prasia* in its new concept finds its justification in the supposed apomorphy found in the degrading lateral margins of the pygofer between the lateral lobes and the caudal dorsal beak (fig. 8).

Consequences of the new genus concept for remaining *Prasia* species

Beside the species included now in *Prasia*, Metcalf (1963) listed two other species: *P. hariola* and *P. tincta*. As a consequence of the new concept for *Prasia* these species are transferred to other genera.

P. hariola, of which recently a small, but very fine, series from Misoöl was discovered in the Vienna Museum, does not show the shape of the pygofer and the uplifted pronotum collar that characterize *Prasia* within the Oriental Prasiini. Moreover, *P. hariola* shows a structure of the male genitalia and a venation of tegmina and wings that characterize the previously monotypic genus *Arfaka*. This is ample evidence that *P. hariola* is to be considered a member of *Arfaka* (together with *A. fulva* (Walker, 1868)). *A. hariola* is described from the island of Misoöl and also known from New Guinea (Vogelkop) (Distant, 1892).

P. tincta is transferred to the genus *Lembeja*, as it shows affinities with one of the four species-groups of *Lembeja*, the so-called *L. fatiloqua* group. This group is characterized by the longitudinally medially dented abdominal tergite 1 in the males (see also De Jong, 1982). *L. tincta* has been described from Bua-Kraeng and is now also known from Lompobattang (both localities in South Sulawesi).

MATERIAL AND METHODS

The material examined for this study belongs

to 13 institutions, which are listed as depositories. All type-material has been studied. Some museums have been visited in order to look for additional material.

For tracing the localities I have used the Atlas van Tropisch Nederland (1938), the Times Atlas of the world (1973) and personal information from Dr. J. P. Duffels, Amsterdam. The distributions are presented on fig. 7.

Terminology follows Duffels (1977, 1983a) with a few new morphological terms and modifications introduced, which will be explained in figs. 1—6, 8, 9, 11.

The methods of Duffels (1977) are used for the examination of the male genitalia.

Measurements were, apart from using a marking gauge with nonius, taken through a stereoscopic microscope with a specially designed ocular.

DEPOSITORIES

The abbreviations given below have been used in the lists of material and throughout the text.

AMS	Australian Museum, Sydney
BIN	Koninklijk Belgisch Instituut voor Natuurwetenschappen, Brussel
BM	British Museum (Natural History), London
CNMW	Naturhistorisches Museum, Wien
DEI	Deutsches Entomologisches Institut, Eberswalde
MHNG	Muséum d'Histoire Naturelle, Genève
MNP	Muséum National d'Histoire Naturelle, Paris
MSNG	Museo Civico di Storia Naturale "G. Doria", Genova
MZB	Museum Zoologicum Bogoriense, Bogor
NRS	Naturhistoriska Riksmuseet, Stockholm
SMD	Staatliches Museum für Tierkunde, Dresden
TMB	Természettudományi Múzeum, Budapest
ZMA	Instituut voor Taxonomische Zoölogie, Zoölogisch Museum Amsterdam.

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TAXONOMY

Prasia Stål, 1863

Prasia Stål, 1862: 483 (num. nud.); Stål, 1863: 574 (original description); Walker, 1868: 94; Stål, 1870: 718; Distant, 1892: 103, 145; Breddin, 1901: 113, 153, 183, 200, 201; Jacobi, 1903: 12, 13; Distant, 1905: 275, 278 (equals *Drepanopsaltria* Bredd.); Distant, 1906: 182, 183 (equals *Drepanopsaltria* Bredd.); Ashton, 1912: 221; Kato, 1932: 14, 30, 188, 189; Kato, 1956: 23, 70, 77, 78, 80; Metcalf, 1963: 423; Boulard, 1975: 315; Duffels, 1977: 205; Holloway, 1979: 235; De Jong & Duffels, 1981: 53, 61; De Jong, 1982: 182, 183; Duffels, 1983b: 492; Duffels & Van der Laan, 1985: 298.

Drepanopsaltria; Breddin, 1901: 113, 183, 200, 201; Jacobi, 1903: 12; Metcalf, 1963: 425 (in synonymy of *Prasia* Stål).

For a more complete list, refer to Metcalf (1963).

Type-species: *Prasia faticina* Stål, designated by Distant, 1905: 278.

Genital characters are given only for the males as there were too few females available to justify damaging specimens by dissection. When

more material will be available the study of the female specimens will be continued.

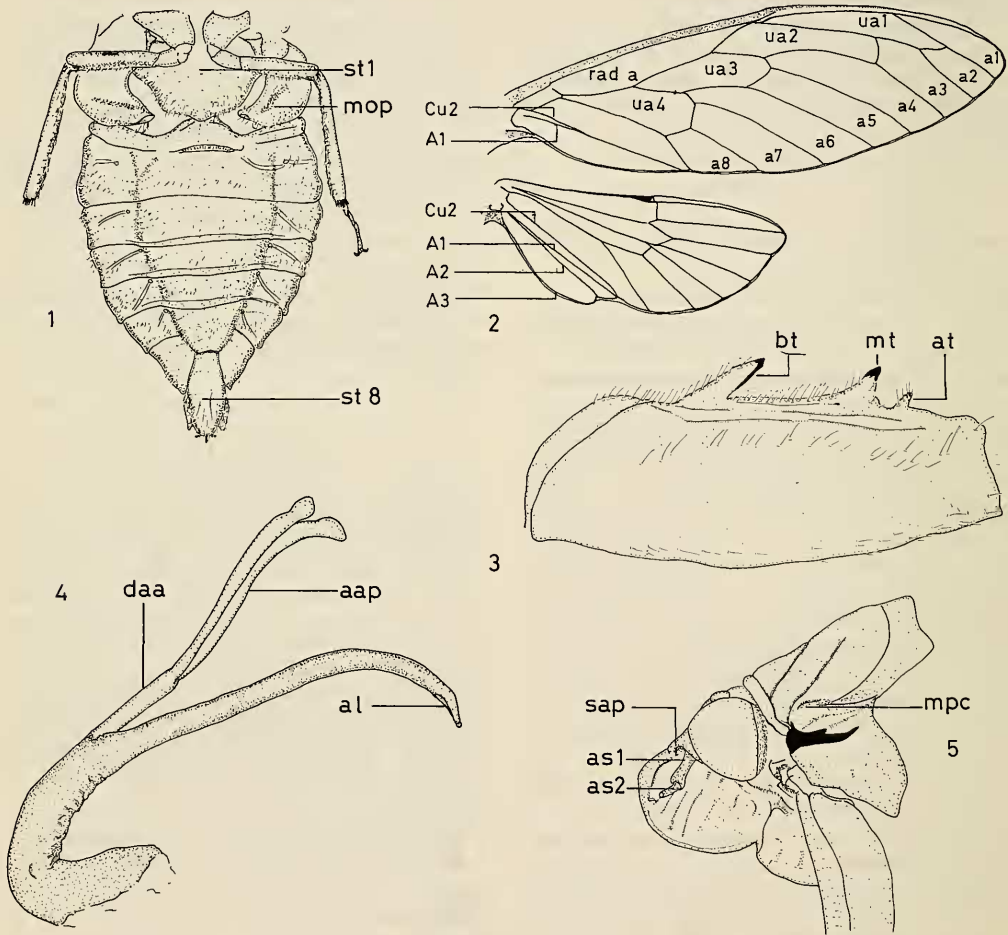
Diagnosis.

Postclypeus obconically protruding in dorsal view. Antennal segment 1 extending clearly from under supra-antennal plate. Head $1.49\text{--}2.07 \times$ as long as width of vertex between eyes. Width of head $2.26\text{--}2.76 \times$ width of vertex between eyes. Head and pronotum together somewhat longer than meso- and metanotum together. Pronotum collar nearly twice as broad

as width of head including eyes, not bent ventrally, but forming a straight line along the lateral margins of the pronotum to the head (fig. 5).

Fore femora with three thorns, basal cylindrical one with a dark brown apex; two apical thorns laterally compressed, middle thorn being almost as long as basal one, most apical one very small (fig. 3).

Male opercula sickle-shaped and reaching 2nd sternite of abdomen. Female opercula small and more or less rounded.



Figs. 1—5. Figures of *Prasia*: 1, male abdomen in ventral view, *Prasia princeps*; 2, right tegmen and wing, *P. princeps*; 3, male femur in lateral view, *P. princeps*; 4, aedeagus in lateral view (after treatment with 10% KOH), *P. princeps*; 5, head and pronotum in lateral view, *P. princeps*. (a 1—8 = 1st—8th apical area; A 1—3 = 1st—3rd anal vein; aap = aedeagal appendage process; as 1—2 = antennal segment 1—2; at = apical thorn; bt = basal thorn; Cu 2 = 2nd cubital vein; daa = dorsal aedeagal appendage; mop = male operculum; mpc = margin pronotum collar; mt = middle thorn; rad a = radial area; sap = supra antennal plate; st 1,8 = 1st, 8th sternite; ua 1—4 = 1st—4th ulnar area.)



Fig. 6. Tymbal, lateral view, *P. nigropercula* (lr = long ridge, sr = short ridge, tr = tymbal ridge).

Tegmina of males pale-hyaline, of females subhyaline. Wings pale-hyaline. Tegmina with fairly long apical areas, 3rd apical area less than $0.78 \times$ the 4th one, 3rd ulnar area less than $0.87 \times$ the 1st one, 4th ulnar area less than $0.77 \times$ radial area. A_1 and Cu_2 veins fused up to the tegmen border.

Anal field of wing enclosed by a fusion of the Cu_2 and A_1 veins or not. Anal lobe (area between A_2 and A_3) apically fairly narrow (fig. 2).

Male abdomen inflated, broadly raised medially along its whole length (tergite 2—8), but not carinate; ventrally bulged out. Tymbal ridges on tergite 2 distinct (fig. 6). Abdominal sternite 1 in males very large and swollen (fig. 1); its distal margin convex or slightly concave. Male sternite 8 apically slightly to strongly pointed.

Tymbals with 6—9 (in *P. princeps* sometimes 10) long ridges alternating with usually the same number of short ridges.

Female abdomen distally more or less clubshaped, since greatest width of segment 9 is broader than width of hind margin of segment 8. Ovipositor sheath just or not reaching beyond caudal dorsal beak.

Lateral lobes of male pygofer fairly short, swollen and acutely pointed, not extending beyond anal valves. Caudal dorsal beak laterally compressed, and therefore very slender and long. Hind part of lateral margin between caudal dorsal beak and each of lateral lobes degrading as in fig. 8. Claspers more or less swollen

and mostly elongate apically. Median uncus part above aedeagus small. Aedeagus slender, with two rounded, sometimes slightly dentate, lobes. Aedeagus with a dorsal appendage, splitting in two slender, apically pointed or rounded, processes, weakly sclerotized (fig. 4). Adjustment of aedeagus usually halfway the length of pygofer.

KEY TO THE MALES OF *PRASIA*

1. Operculum nearly black, contrasting with pale underside of the thorax. *Muna*
..... *nigropercula* (p. 180)
- Operculum concolorous with the (mostly pale) underside of the thorax 2
2. Medium-sized to large species (body length: 24.6—29.7 mm). Body colour green to greenish-olivaceous. Cu_2 and A_1 veins in the wing may be fused. North and Central Sulawesi 3
- Small to medium-sized species (body length: 19.6—23.8 mm). Body colour brown, pale-brown or orange-brown. Cu_2 and A_1 veins never fused. Central, East and South Sulawesi 4
3. Genitalia as in figs. 60—68. Cu_2 and A_1 veins usually fused. 9 (sometimes 8 or 10) long ridges alternating with usually the same number of short ridges. North Sulawesi *princeps* (p. 182)
- Genitalia as in figs. 76—81. Cu_2 and A_1 not fused. 6 long ridges alternating with the same number of short ridges. Central Sulawesi *senilirata* (p. 186)
4. Central fascia on the pronotum usually concolorous with it. Central and East Sulawesi 5
- Central fascia usually dark-brown coloured, or traces of such a coloration present. Central and South Sulawesi 6
5. Operculum rounded apically (fig. 39). Central Sulawesi *sarasinorum* (p. 176)
- Operculum pointed apically (fig. 14). East Sulawesi *tuberculata* (p. 178)
6. Genitalia as in figs. 8—13. South Sulawesi *faticina* (p. 170)
- Genitalia as in figs. 21—26. Central Sulawesi *breddini* (p. 174)

The females are not included in the key, since these are known with certainty of two species only. The females *P. princeps* are generally green to greenish-olivaceous (sometimes with a brownish tinge), whilst those of *P. faticina* are usually orange-brownish with olivaceous

tings. Females of *P. princeps* (25.9—30.2 mm) are usually larger than those of *P. faticina* (24.6—26.2 mm). Third ulnar area of *P. faticina* females often, but not always, shaped as in fig. 20, of *P. princeps* females usually as in fig. 2, some females have a 3rd ulnar area of intermediate shape (fig. 70).

***Prasia faticina* Stål, 1863**
(figs. 7—20, 86, 87)

Prasia faticina Stål, 1863: 574 Stål, 1870: 94; Distant, 1888: 325; Distant, 1892: xiv, 145 (partim: only Makassar), pl. 7 figs. 14, 14a, b: 146; Jacobi, 1903: 12; Distant, 1905: 278; Distant, 1906: 183; Kato, 1932: 189; Metcalf, 1963: 424.

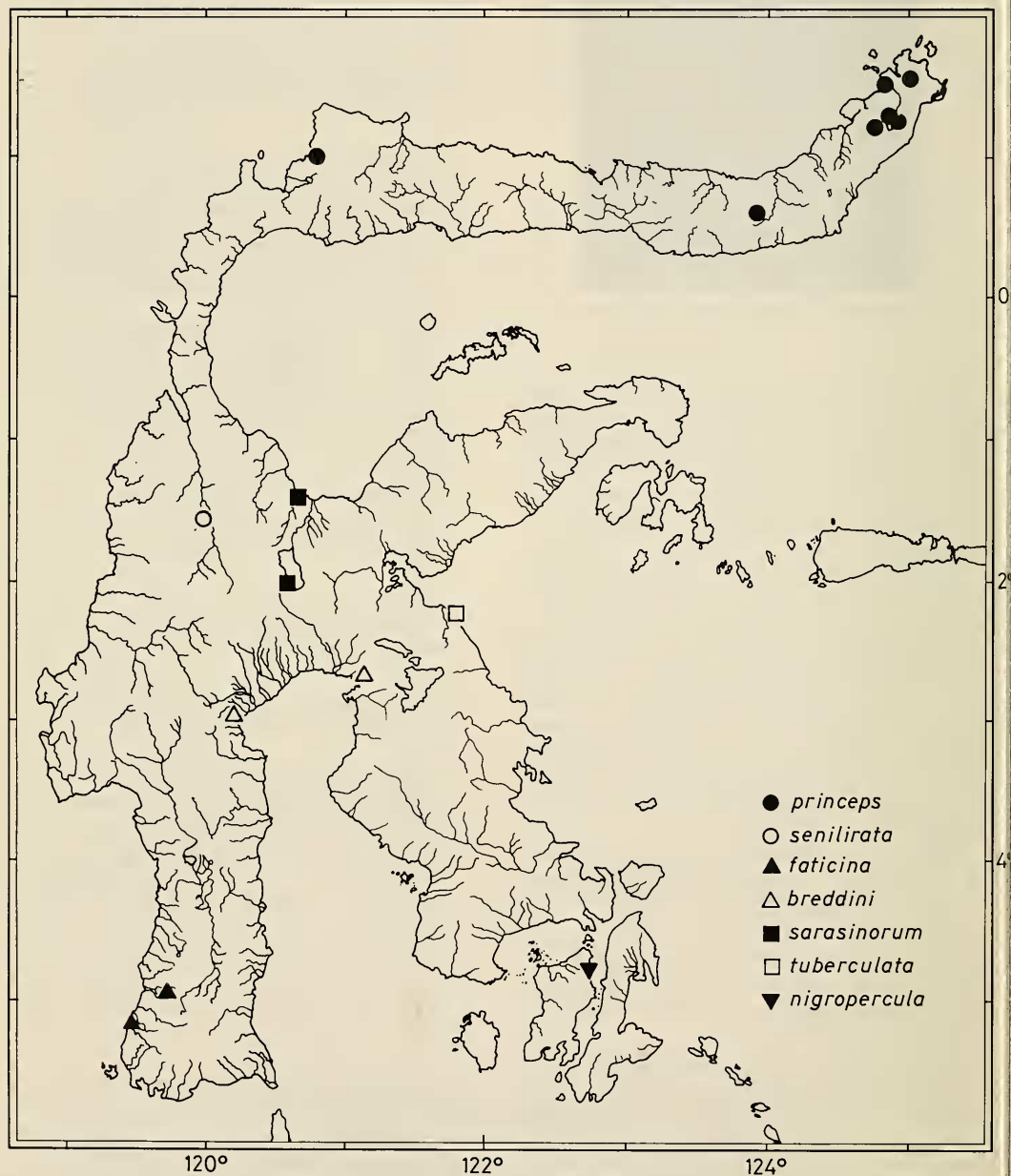


Fig. 7. Distributions of the species of *Prasia*, *P. breddini*, *P. faticina*, *P. nigropercula*, *P. princeps*, *P. sarasinorum*, *P. senilirata* and *P. tuberculata*.

Prasia culta Distant, 1898: 97; Distant, 1905: 279 (equals *Drepanopsaltria* (*Lembeja*) *culta* Bredd.); Distant, 1906: 184 (ditto); Kato, 1932: 32, text-fig. 37c, 189, pl. 26, fig. 12; Metcalf, 1963: 424 **Syn. nov.**

Drepanopsaltria culta; Breddin, 1901: 28, 113; Jacobi, 1903: 10.

The following references to *Prasia faticina* were found to relate to other species: Distant, 1892: 145 (partim: specimen from Kandari is unidentified); Breddin, 1901: 112, 113, 153, pl. 1 fig. 17 (= *Lembeja maculosa* (Distant, 1883)).

The following reference to *Prasia culta* was found to relate to *P. princeps*: Lallemand, 1931: 78.

Lectotype designation.

Prasia culta was described after two male specimens from Patunuang, both stored in the British Museum (Nat. Hist.). One, bearing the following labels, is designated lectotype: "*culta*/ Dist." (handwritten, black); "S. Celebes/ Patunuang/ Jan. 1896/ H. Fruhstorfer" (print, black cadre); "Type" (round label, red edged, print); "SYN-/ TYPE" (round label, blue edged, print); "8" (print); "Distant Coll./ 1911—383" (print). Consequently, the other specimen with a syntype label is a paralectotype.

Synonymy.

Comparison of the female holotype of *P. faticina* and the female *P. culta* specimens inferred conspecificity, though the holotype of *P. faticina* is of an almost entire olivaceous colour. The original description of *P. faticina* by Stål (1863) gives as body colour: "Pallidissime subolivaceo-flavescens", which means that the body had a sort of yellowish colouring. This is an indication that the original coloration has changed. Furthermore, the female *culta*-specimens have a coloration that is much more alike the coloration given by Stål (1863).

Description.

Body of males dark-brown or light orange-brownish, dark coloured specimens with a light pronotum with a dark collar. Females orange-yellowish with olivaceous. Dark male specimens ventrally paler. Head and pronotum together $1.02\text{--}1.22 \times$ as long as meso- and metanotum together. Female thorax and head together $0.83\text{--}0.94 \times$ as long as abdomen; male $0.73\text{--}0.82 \times$ as long. Greatest width of the

body at the height of pronotum collar or 3rd abdominal segment.

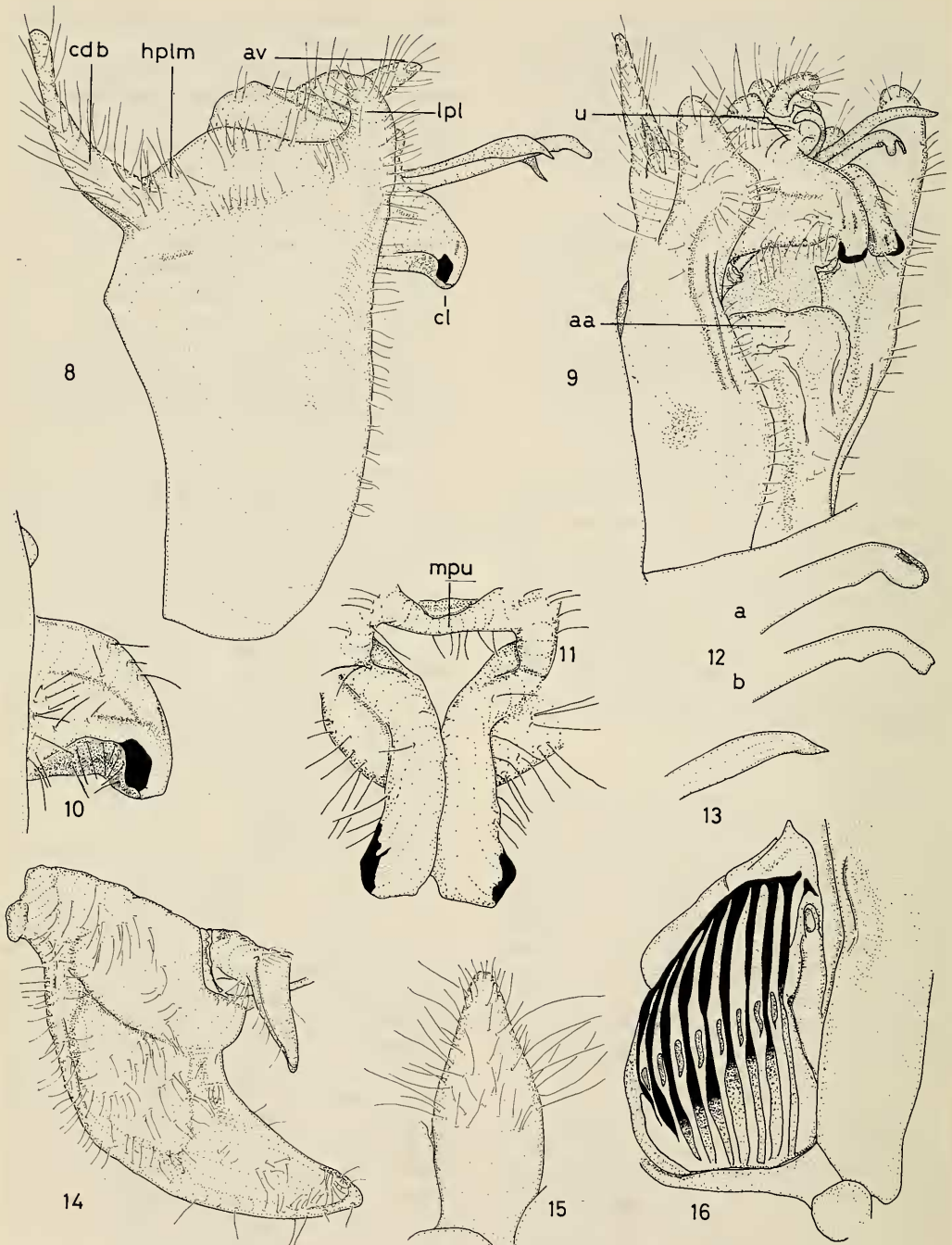
Head. — Dark or light in males, light in females. Light coloured males brown between the eyes with a middorsal stripe from margin of pronotum up to fissure between lateral ocelli. Eyes $0.63\text{--}0.8 \times$ as wide as vertex width between eyes. Ocelli raised. Distance between lateral ocelli $1\text{--}1.45 \times$ as long as distance between eye and lateral ocellus. Head $1.49\text{--}1.85 \times$ as long as vertex width between eyes. Width of head $2.26\text{--}2.6 \times$ as wide as width of vertex between eyes. Postclypeus in ventral view strongly laterally compressed, paler than dorsally. Transverse ridges concolorous, sometimes upper four ridges slightly darker coloured. Rostrum with a black apex reaching hind margin of intermediate coxae.

Thorax. — In dark male specimens pronotum collar, lateral margin of pronotum and central fascia chocolate-brown, in lighter specimens this coloration less conspicuous. Females with a dark coloured line on the lateral margin (not reaching the pronotum collar) only. Pronotum collar $1.77\text{--}2.02 \times$ as wide as head including eyes. Mesonotum with four pale, irregularly speckled obconical areas, sometimes hardly or not discernable. Lateral parts of mesonotum and parts in front of cruciform elevation sometimes (especially in the females) olivaceous tinged. In dark coloured male specimens posterior part of cruciform elevation as well as metanotum chocolate-brown.

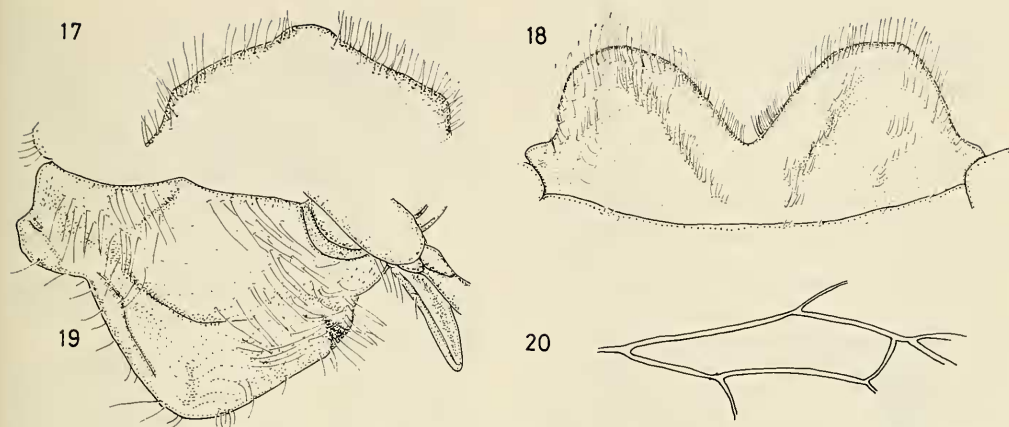
Legs. — Concolorous, except fore tibiae and tarsi, which are mostly dark-brown.

♂. Tegmina and wings. — Tegmina pale hyaline, extreme base vermillion-red. Costal membrane chocolate-brown, in lighter coloured males pale-brown. Venation brownish- or pale-ochraceous, basal area infuscated. Third ulnar area (sometimes shaped as in fig. 20) $0.65\text{--}0.83 \times$ as long as 1st ulnar area; 4th ulnar area $0.64\text{--}0.74 \times$ as long as radial area. Apical areas of the tegmen long, 4th, 5th, 7th longest; 3rd apical area $0.58\text{--}0.71 \times$ as long as 4th one. Hardly any indication of a corial fold, nor of any remnant of a transverse vein extending from the 2nd ulnar area into the 3rd. Wings pale hyaline, colour of venation as in tegmina, extreme base vermillion-red. Cu_2 and A_1 do not fuse.

Operculum. — Pale-ochraceous. Slender, pointed apically; meracanthus fairly broad, sharply pointed, reaching beyond proximal part of the operculum.



Figs. 8—16. *Prasia faticina*, ♂, Patunuang. 8, pygofer, ventral view (*av* = anal valves, *cdb* = caudal dorsal beak, *cl* = clasper, *hplm* = hindpart lateral margin, *lpl* = lateral pygofer lobe); 9, pygofer, ventrolateral view (*aa* = aedeagal adjustment, *u* = uncus); 10, clasper, lateral view; 11, uncus and claspers, ventral view (*mpu* = median part of uncus); 12a, laterodorsal view, 12b, lateral view; 13, apex of aedeagal appendage process; 14, operculum, ventral view; 15, sternite 8, ventral view; 16, tymbal, lateral view.



Figs. 17—20. *Prasia faticina*; 17, ♂ Patunuang; 18—20, ♀ Patunuang. 17, edge of sternite 1, ventral view; 18, sternite 7, ventral view; 19, operculum, ventral view; 20, 3rd ulnar area of right tegmen.

Abdomen. — Tergites dark- or light-brown, with orange-red hindmargins. In darker specimens hindmargins of sternites 3—7 greyish-brown, and tergites with pale lateral spots. Tergite 1 trapezoid with sharp proximal and obtuse distal angles. Hindmargin of tergite 1 twice as long as medial length of tergite. Tergite 3 longest. Sternite 8 apically pointed.

Tymbals. — Medium-sized, provided with 8 chocolate-brown long ridges alternating with short orange-brown medial ridges, of which the smallest one is sometimes hardly visible.

Genitalia. — Lateral lobes in lateral view swollen and pointed, in ventral view basally swollen, apically slender and pointed. Caudal dorsal beak at a slight angle with dorsal part of the pygofer. Claspers in lateral view very broad and strongly curved apically; hardly elongate. Uncus as in fig. 11, with a small or hardly developed medial protuberance. Aedeagus slender with slender, slightly dentate, short apical lobes. Adjustment of aedeagus situated at half the length of the pygofer. Dorsal aedeagal appendage originating at about 2/3 of aedeagus length and split in two slender, apically pointed, processes at about 2/3 of its own length, these processes not reaching apex of aedeagus.

♀. Tegmina and wings. — Tegmina subhyaline with an orange-brownish tinge; extreme base pale-red. Costal membrane white. Venation pale-ochraceous, basal area infuscated. Third ulnar area (sometimes shaped as in fig. 20) $0.55\text{--}0.74 \times$ as long as 1st ulnar area; 4th ulnar area $0.62\text{--}0.66 \times$ as long as radial area. Apical areas as in males, 3rd apical area $0.55\text{--}0.69 \times$

as long as 4th one. Hardly any indication of a transverse vein extending from the 2nd ulnar area into the 3rd.

Wings pale hyaline, colour of venation as in tegmina, extreme base pale-red. Cu_2 and A_1 do not fuse.

Operculum. — Pale-ochraceous, rounded in holotype, more of a pointed shape in the other female specimens. Meracanthus as in males.

Abdomen. — Orange-brown with sometimes an olivaceous tinge, especially on the weakly carinated medio-dorsal "ridge". Caudal dorsal beak slender. Ovipositor sheath not reaching beyond caudal dorsal beak. Sternite 7 as in fig. 18. Measurements based upon all specimens available: body length ♂: $19.6\text{--}23.8$ mm, $\bar{x} = 22.3$, $\sigma = 1.727$, ♀: $24.6\text{--}26.2$ mm, $\bar{x} = 25.4$, $\sigma = 0.583$; width of pronotum collar ♂: $7.2\text{--}8.3$ mm, $\bar{x} = 7.7$, $\sigma = 0.339$, ♀: $9\text{--}9.6$ mm, $\bar{x} = 9.3$, $\sigma = 0.286$; tegmen length ♂: $26.1\text{--}31.2$ mm, $\bar{x} = 28.5$, $\sigma = 1.305$, ♀: $34.9\text{--}37.9$ mm, $\bar{x} = 36.0$, $\sigma = 1.190$.

Distribution. — South Sulawesi (Patunuang, Ujung Pandang (= Makassar)) (fig. 7).

Material examined. — Indonesia, Sulawesi: Patunuang, H. Fruhstorfer, i. 1896, 1 ♂ lectotype of *Prasia culta* (BM), 1 ♂ paralectotype of *Prasia culta* (BM), 4 ♂ 2 ♀ (CNMW), same data but with: 1909—21, *Prasia* sp., 1 ♀ (BM), same data but with: *Prasia* Dist; 1910—6, coll. A. Jacobi, 1 ♂ (SMD), same data but with: *Prasia culta*, 1 ♂ (AMS), same data but with: *Drepanopsaltria culta*, 1 ♂ (DEI), same data but with: *Drepanopsaltria culta* Dist., 1 ♂ (TMB), "Mak" (= Makassar, now Ujung Pandang, blue round label, handwritten), "Celeb/Wallace" (partly print, partly

handwritten), "*faticina*. Stål" (handwritten), "67/66" (handwritten, blue round label), "syntype" (print, blue edged, round label), 1 ♀, holotype of *Prasia faticina* (BM).

Remarks.

P. faticina is closely related to *P. breddini* n. sp., and differences between these species are only small. Two other very closely related species are *P. tuberculata* n. sp. and *P. sarasinorum* n. sp., which are easier discerned from *P. faticina*. Among the males of *P. faticina* are very dark and light coloured specimens. Since, however, their genitalia are all alike, and no other structural differences have been found, I have refrained from a taxonomic separation between the two colour forms.

Prasia breddini n. sp.

(figs. 7, 21—30)

Since *Prasia breddini* resembles *P. faticina* in almost every respect, a differential description is presented. The species is described after two male specimens.

Description of the male.

Body of male dark, holotype a little paler than a dark coloured *P. faticina* specimen. Head and pronotum together $1.1\text{--}1.11 \times$ as long as meso- and metanotum together. Thorax and head together $0.77 \times$ as long as abdomen. Greatest width of the body at the height of the 3rd abdominal segment.

Head. — Uniformly brown, with a dorsal medial longitudinal pale line on postclypeus. Eyes $0.71\text{--}0.79 \times$ as wide as vertex width between eyes. Distance between lateral ocelli $1\text{--}1.25 \times$ as long as distance between lateral ocellus and eye. Head $1.69\text{--}1.72 \times$ as long as vertex width between eyes. Head $2.42\text{--}2.58 \times$ as wide as vertex width between eyes. Transverse ridges less distinct than in dark *P. faticina* specimens. Head in lateral view more rounded than in *P. faticina*. Rostrum reaching intermediate trochanter.

Thorax. — Coloration of pronotum intermediate between dark and lighter coloured *P. faticina* specimens. Pronotum collar $1.91\text{--}1.92 \times$ as wide as head including eyes. Mesonotum pale-brown with patches indicating four obconical areas, except for a brown spot in front of cruciform elevation. Ventral surface with thicker hairs than in *P. faticina*.

Legs. — Shape as in *P. faticina*, fore tibiae and tarsi only slightly darker than femora.

Tegmina and wings. — Third ulnar area $0.63 \times$ as long as 1st one; 4th ulnar area $0.62\text{--}0.67 \times$ as long as radial area. 3rd apical area $0.61 \times$ as long as 4th one.

Operculum. — As in *P. faticina*. General appearance only slightly broader.

Abdomen. — In holotype paler than the dark coloured *P. faticina* specimens, in paratype fairly dark. Sternites with broad, orange-brown to red coloured hindmargins.

Tymbals. — Eight pairs of alternating ridges, the smallest short ridge is, as may be found in *P. faticina*, hardly visible.

Genitalia. — Pygofer more sturdy than in *P. faticina*. Claspers elongate and not strongly curved apically; its dark brown apex pointed. Median part of uncus above aedeagus broader than in *P. faticina*; sometimes provided with a small medial protuberance. Dorsal part of uncus raised high above the lateral margin of the pygofer. Aedeagus longer and stouter than in *P. faticina*, its apical lobes longer and less slender; dentate. Adjustment of aedeagus at half the length of the pygofer. Pointed processes of dorsal aedeagal appendage somewhat broader than in *P. faticina*.

Measurements of the ♂ types: body length: 22.3 mm; width of pronotum collar: $7.6\text{--}8.2$ mm; tegmen length: 29.5 mm.

Distribution. — The male holotype has been collected in Ussu, Central Sulawesi, near Malili. The paratype is from Palopo, Central Sulawesi (fig. 7).

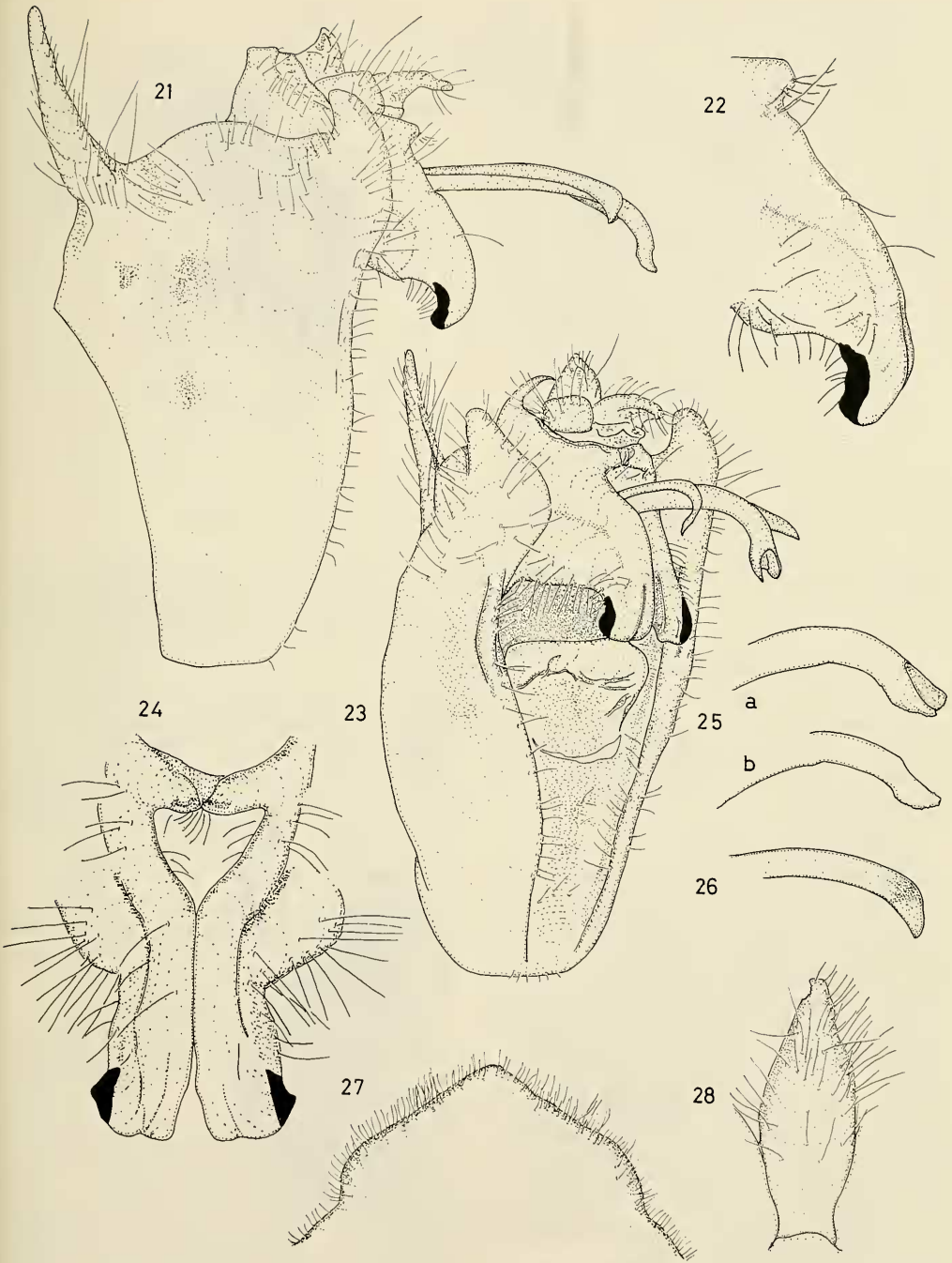
Types. — Indonesia, Sulawesi: "Celebes/ Ussu/ leg. Dres. Sarasin" (handwritten), "Ussu" (handwritten), "1910/ 6" (partly print, partly handwritten), "coll. A. Jacobi" (print), "Staatl. Museum für/ Tierkunde Dresden" (print), 1 ♂, holotype of *Prasia breddini* (SMD); Palopo, Celebes, 1 ♂ paratype of *Prasia breddini* (MZB).

Etymology. — The species is named after the German hemipterologist Dr. Gustav Breddin, who recognized the separate taxonomic position of *Prasia* as defined in his description of *Drepanopsaltria*.

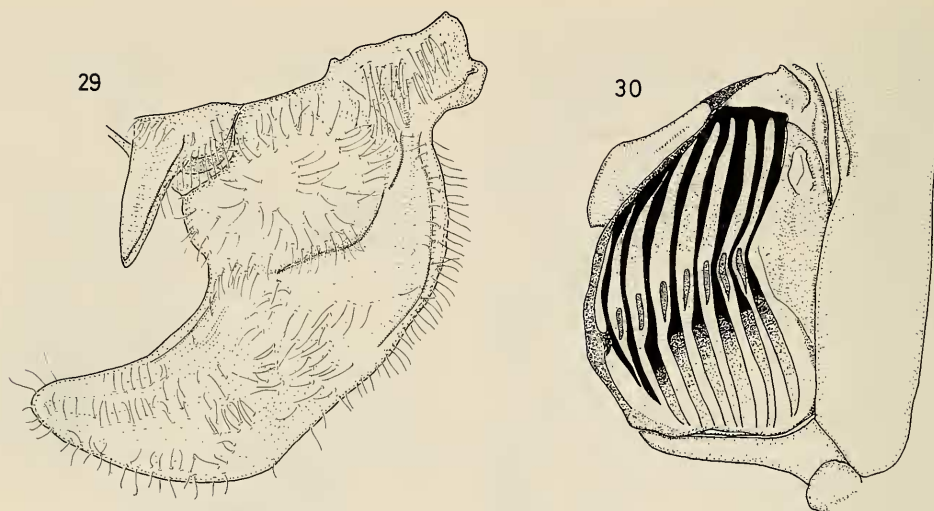
Remarks.

Differences between *P. breddini* and *P. faticina* are mainly found in the genital structures of the two species. As the differences are very slight, the species are probably very closely related.

There are several female specimens that may be attributed to *P. breddini*. The supposed taxonomic position of some unidentified females



Figs. 21—28. *Prasia breddini*, holotype. 21, pygofer, lateral view; 22, clasper, lateral view; 23, pygofer, ventro-lateral view; 24, uncus, ventral view; 25, apex of aedeagus, 25a, laterodorsal view, 25b, lateral view; 26, apex of aedeagal appendage process; 27, edge of sternite 1, ventral view; 28, sternite 8, ventral view.



Figs. 29, 30. *Prasias breddini*, holotype. 29, operculum, ventral view; 30, tymbal, lateral view.

will be discussed in the remarks of *P. sarasinorum* n. sp.

***Prasias sarasinorum* n. sp.**
(figs. 7, 31—40, 88)

The differential description of *P. sarasinorum* hereafter is made in comparison with *P. faticina*. The species is described after four male specimens.

Description of the male.

Body pale-orange-brown. Specimens studied without traces of a dark coloured fascia on the pronotum. Ventrally a little paler than dorsally. Head and pronotum together $1.12\text{--}1.21 \times$ as long as meso- and metanotum together. Thorax and head together $0.79 \times$ as long as abdomen. Greatest width of body at the height of either the 3rd abdominal segment or pronotum collar.

Head. — Slightly darker between eyes. Eyes $0.78\text{--}0.84 \times$ as wide as vertex between eyes. Distance between lateral ocelli $0.91\text{--}1.52 \times$ as long as distance between eye and lateral ocellus. Head $1.85\text{--}2 \times$ as long as vertex width between eyes. Width of head $2.57\text{--}2.68 \times$ as wide as vertex between eyes. Rostrum reaching beyond intermediate coxae.

Thorax. — Pronotum unicolorous, sometimes a little darker on pronotum collar, especially at the lateral corners. Pronotum collar $1.88\text{--}2.01 \times$ as wide as head including eyes. Mesonotum in only one specimen unicolorous,

which seems to be the natural coloration, since the other specimens (with odd patches) have been kept in alcohol for some time. Ventral surface of thorax with thicker hairs than in *P. faticina*.

Legs. — As in *P. faticina*, but fore tibiae and tarsi less conspicuously darker coloured.

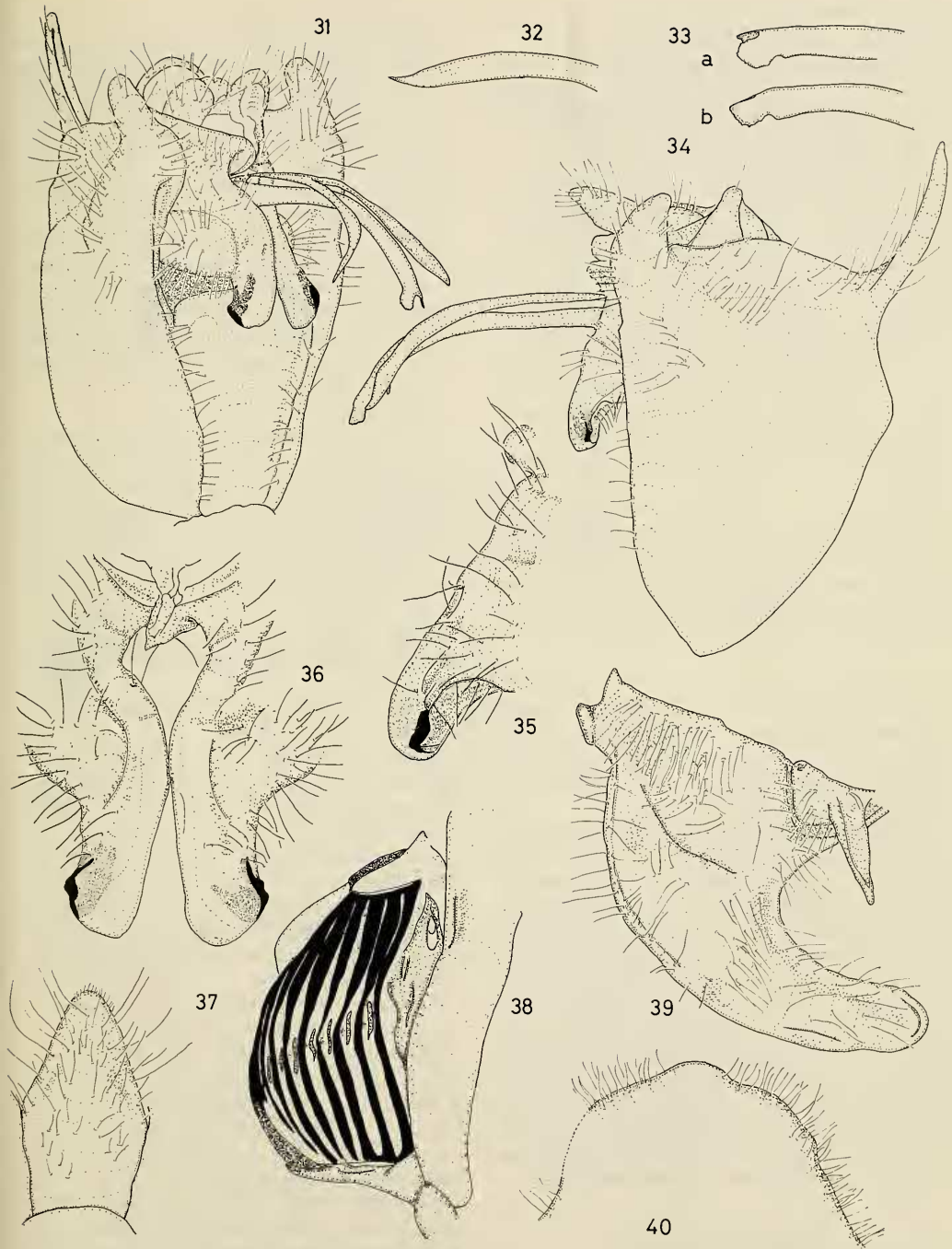
Tegmina and wings. — Third ulnar area $0.66\text{--}0.71 \times$ as long as 1st one; 4th ulnar area $0.64\text{--}0.71 \times$ as long as radial area. Third apical area $0.67\text{--}0.69 \times$ as long as 4th one.

Operculum. — Broader than in *P. faticina*; apex distinctly rounded.

Abdomen. — Tergites orange-brown, sternites only a little paler. Tergites 3—6 only with small red, sternites with broad red hindmargins. Sternite 1 laterally almost straight. Sternite 8 apically less pointed than in *P. faticina*.

Tymbals. — Eight long ridges alternating with short ridges, smallest short one mostly distinctly visible, and even a 9th long ridge sometimes discernable.

Genitalia. — Pygofer small compared to *P. faticina*. Caudal dorsal beak shorter than in *P. faticina*. Lateral margins of pygofer in between caudal dorsal beak and each of the lateral lobes hardly, though distinctly, degrading. Lateral lobes a little smaller than in *P. faticina*. Claspers in lateral view more elongate and apically dark, hardly curved. Aedeagus in general appearance more sturdy than in *P. faticina*. Apical lobes of aedeagus very short and broad; dentate. Adjustment of aedeagus situated less than



Figs. 31—40. *Prasia sarasinorum*. 31, pygofer, ventrolateral view, holotype; 32, apex of aedeagal appendage process, holotype; 33, apex of aedeagus, 33a, laterodorsal view, 33b, lateral view, holotype; 34, pygofer, lateral view, holotype; 35, clasper, lateral view, holotype; 36, uncus, ventral view, holotype; 37, sternite 8, ventral view, holotype; 38, tymbal, lateral view, paratype Mapane; 39, operculum, ventral view, paratype Mapane; 40, edge of sternite 1, ventral view, holotype.

halfway the length of the pygofer. Processes of dorsal aedeagus appendage pointed.

Measurements of the ♂ types: body length: 22.9—23.2 mm ($n = 2$); width of pronotum collar: 7.9—8.3 mm, $\bar{x} = 8.1$, $\sigma = 0.145$; tegmen length: 28.5—28.9 mm, $\bar{x} = 28.8$, $\sigma = 0.189$.

Distribution. — Central Sulawesi (fig. 7).

Types. — Indonesia, Sulawesi: "Celebes/Mapane & Umgebg/ii.95 (Dres. Sarasin)" (handwritten), "*Prasia/Distanti/Bred.*" (handwritten), "*Prasia culta?*" (handwritten), „Distant Coll./1911—383." (print), 1 ♂, holotype of *Prasia sarasinorum* (BM); Mapane & surroundings, Dres. Sarasin, ii. 95, coll. A. Jacobi, 1910—6, 1 ♂ paratype of *Prasia sarasinorum* (SMD), same locality and collector but with: coll. Breddin, 1 ♂ paratype of *Prasia sarasinorum* (DEI); Posso (near lake), ii.95, Dres. Sarasin, coll. Breddin, 1 ♂ paratype of *Prasia sarasinorum* (DEI).

Etymology. — This species is named after the Sarasin brothers, in recognition of their contributions to our knowledge of the fauna of Sulawesi by their collecting activities and important publications on the biogeography of the island (e.g. Sarasin & Sarasin, 1901).

Remarks.

The species is easily recognized by its rounded opercula, the apex of the aedeagus, and the lacking of dark coloured central fascia on the pronotum. The character last mentioned is shared with *P. tuberculata* n. sp.

The material collected by the Sarasin brothers also contained two females, one from the surroundings of Lake Posso and one from the southern headlands of the Takalekadjo Range in Central Sulawesi. These are characterized by a slender tergite 9 and the ovipositor sheath being longer than in any other *Prasia* female. As there is another female specimen from Tentena, that is different from both specimens collected by the Sarasins, it is impossible to attribute these three females to any species yet, regarding *P. sarasinorum*, *P. senilirata* n. sp. and *P. breddini* in particular, since these three species are recorded from Central Sulawesi. More material may lead to a proper identification of these females.

Prasia tuberculata n. sp.

(figs. 7, 41—50)

The differential description, after the male holotype, is made in comparison with *P. faticina*.

Description of the male.

Body brown coloured. Ventrally paler than dorsally. Head somewhat darker. Holotype without traces of dark coloured fascia on the pronotum. Head and pronotum together $1.05 \times$ as long as meso- and metanotum together. Thorax and head together $0.78 \times$ as long as abdomen. Greatest width of the body at the height of the 3rd abdominal segment.

Head. — Slightly darker between ocelli. Eyes $0.72 \times$ as wide as vertex between eyes. Distance between lateral ocelli $1.2 \times$ distance between lateral ocellus and eye. Head $1.78 \times$ as long as width of vertex between eyes. Width of head $2.43 \times$ width of vertex between eyes. Postclypeus ventrally pale coloured. Rostrum just reaching intermediate trochanter.

Thorax. — Pronotum on the whole unicolorous, somewhat darker coloured on the pronotum collar, especially at the lateral corners. Pronotum collar $1.86 \times$ as wide as width of head including eyes. Mesonotum, with the four obconical areas slightly lighter coloured, concolorous. Cruciform elevation slightly darker coloured.

Legs. — As in *P. faticina*, the fore tibiae and tarsi only being slightly darker than the remainder.

Tegmina and wings. — Costal membrane not as dark as in *P. faticina*. Third ulnar area (shaped as in fig. 20) $0.81 \times$ as long as 1st one; 4th ulnar area $0.66 \times$ as long as radial area. Apical areas 4, 5, 6 and 7 longest. Third apical area $0.66 \times$ as long as 4th one.

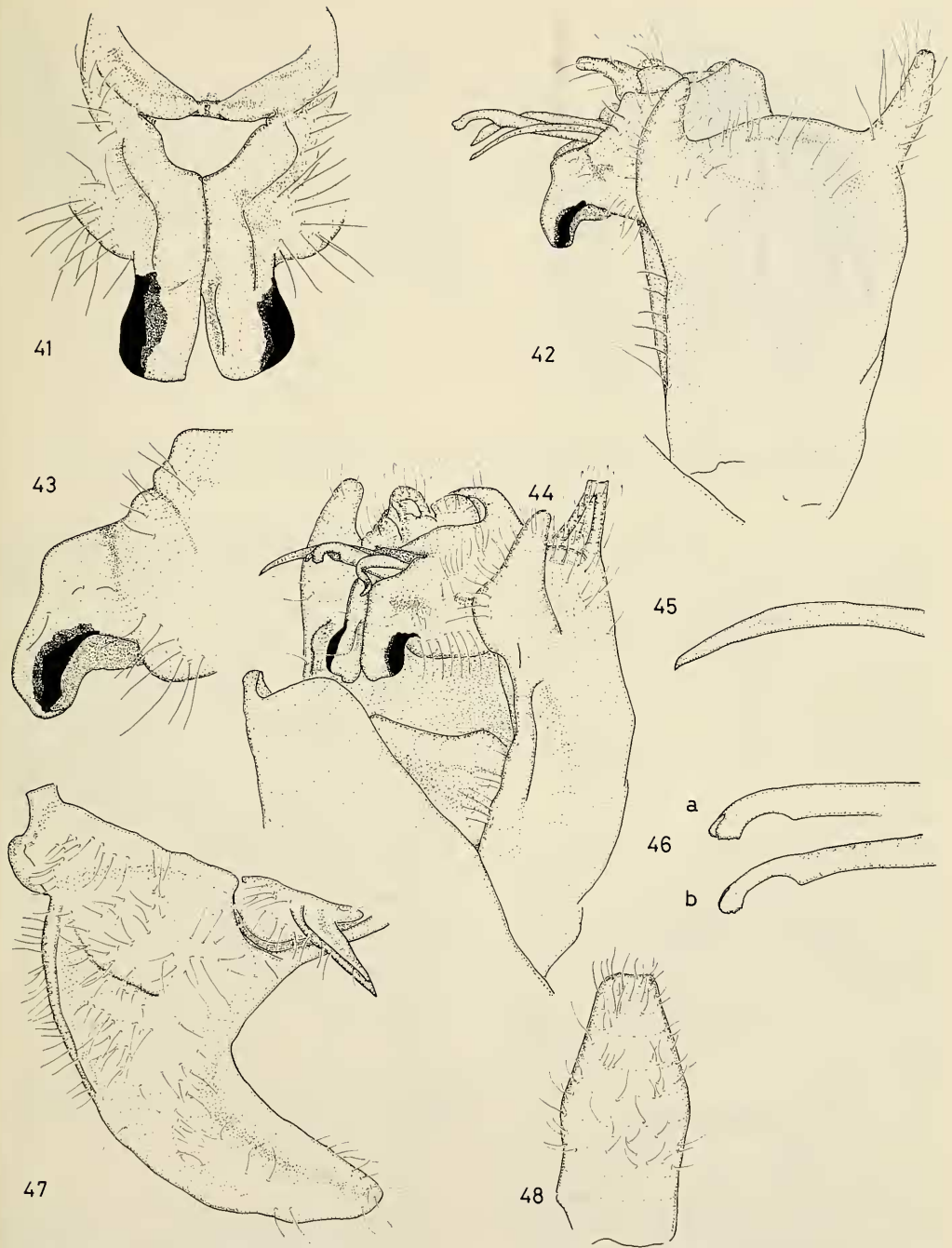
Operculum. — As in *P. faticina*, meracanthus more slender.

Abdomen. — Tergites brown, sternites only a little paler. Tergites 3—6 only with small red, sternites with broad pale-red hindmargins. Sternite 8 far less pointed.

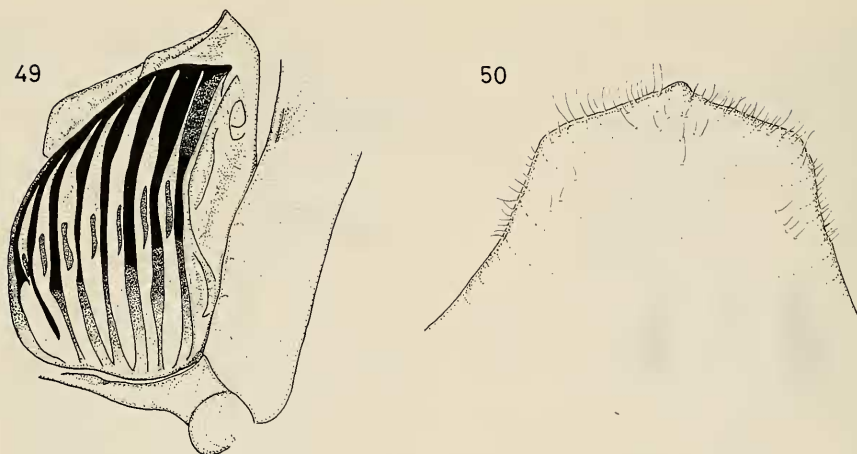
Tymbal. — Seven long ridges alternating with an equal number of short ridges.

Genitalia. — Pygofer small compared to *P. faticina*. Caudal dorsal beak mutilated. Lateral margins of pygofer hardly, though distinctly, degrading. Lateral lobes a little smaller, in ventral view more pointed. Claspers in lateral view apically slender, but with a distinct swelling dorsally. Median uncus part small, without protuberance. Apex of aedeagus longer than in *P. faticina*; aedeagus slender. Adjustment of aedeagus situated slightly lower in comparison with *P. faticina*. Processes of dorsal aedeagal appendage very slender and pointed apically.

Measurements of the holotype: body length:



Figs. 41—48. *Prasia tuberculata*, holotype. 41, uncus, ventral view; 42, pygofer, lateral view; 43, clasper, lateral view; 44, pygofer, ventrolateral view; 45, apex of aedeagal appendage process; 46, apex of aedeagus, 46a, latero-dorsal view, 46b, lateral view; 47, operculum, ventral view; 48, sternite 8, ventral view.



Figs. 49, 50. *Prasia tuberculata*, holotype. 49, tymbal, lateral view; 50, edge of sternite 1, ventral view.

22.8 mm; width of pronotum collar: 7.6 mm; tegmen length: 27.4 mm.

Distribution. — The holotype is from Tombugu (= Tombuko) in East Sulawesi (fig. 7).

Type. — Indonesia, Sulawesi: "Ost-Celebes/Tombugu/H. Kühn 1885" (print, black cadre), 1 ♂ (MNP).

Etymology. — The species is named after its swelling on the clasper, when looked at laterally. "Tuberculata" is Latin for swollen.

Remarks.

At first sight this species is easily mixed up with *P. sarasinorum*, because of the lacking of coloration of the central fascia on the pronotum. Its genitalia, however, are very different from the species mentioned, and its opercula are pointed, whilst in *P. sarasinorum* they are rounded apically. The apex of the aedeagus seems a sort of combination between *P. faticina* and *P. sarasinorum*. The number of long ridges is the same as in *P. nigropercula*.

Prasia nigropercula n. sp.

(figs. 6, 7, 51—59, 89)

The description is made in comparison with *P. faticina* and based upon the single male specimen from Muna Island, situated near the southeastern arm of Sulawesi.

Description of the male.

Body fairly dark coloured, especially head, pronotum collar, central fascia and obconical spots on mesonotum. Head and pronotum to-

gether $1.34 \times$ as long as meso- and metanotum together. Head and thorax together $0.78 \times$ as long as abdomen. Greatest width of body at the height of pronotum collar.

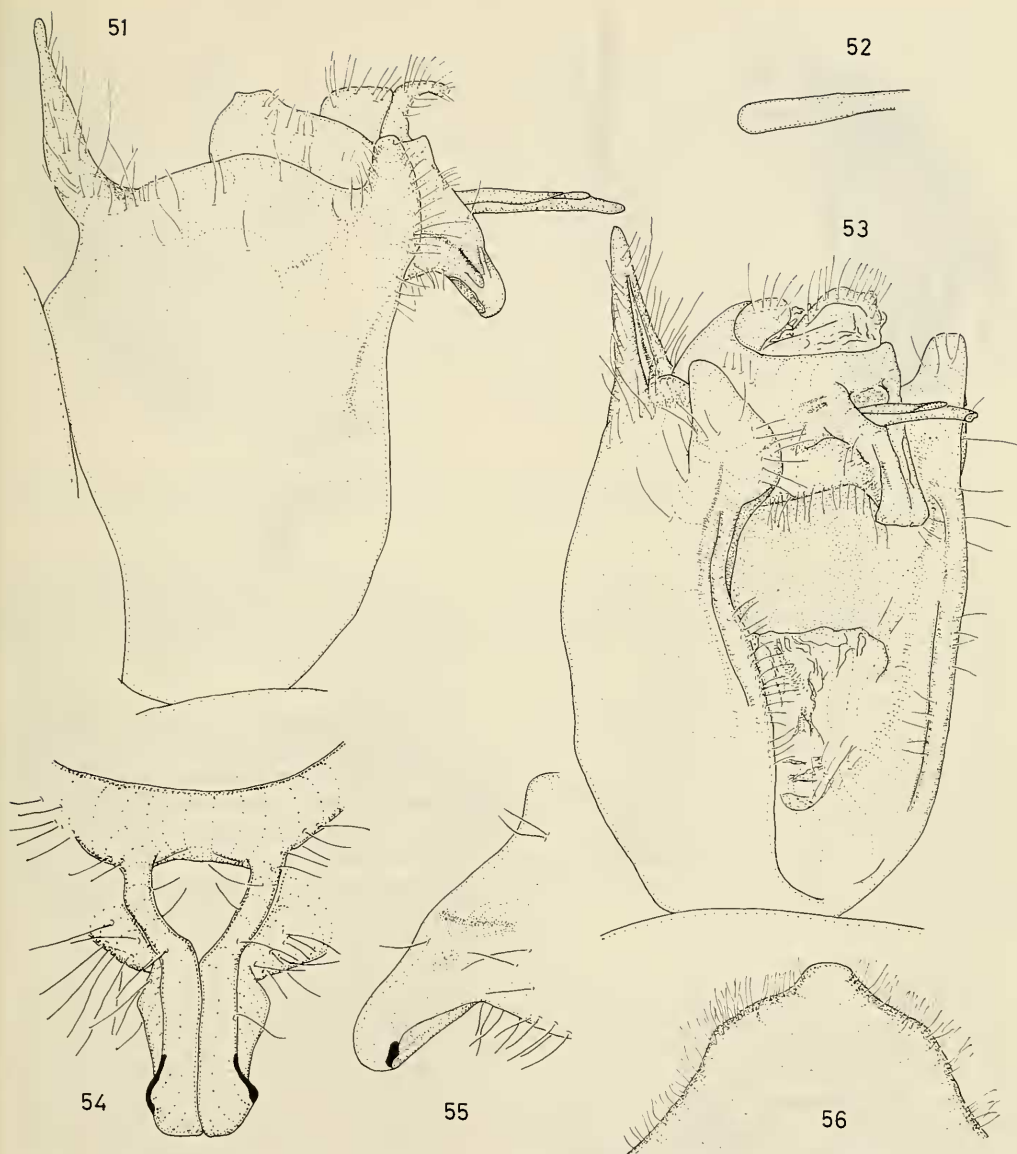
Head. — Dark-brown, ocelli on a black underground. Head (a little damaged) much porrect. Eyes $0.67 \times$ as wide as vertex width between eyes. Distance between lateral ocelli $1.1 \times$ distance between eye and lateral ocellus. Head $1.82 \times$ as long as width of vertex between eyes. Head $2.34 \times$ as wide as vertex between eyes. Postclypeus in ventral view darkening distad. Rostrum reaching intermediate coxae.

Thorax. — Pronotum collar, lateral margin of pronotum, central fascia and some spots on the pronotum dark-brown coloured. Pronotum collar more or less pointed at the lateral corners, $1.96 \times$ as wide as head including eyes. Mesonotum with six dark-brown coloured areas at proximal margin, two paramedian ones half as long as more lateral ones, which join broadly in front of cruciform elevation. Cruciform elevation dark-brown for its greater part. Metanotum dark-brown. Ventrally pale ochraceous.

Legs. — As in *P. faticina*.

Tegmina and wings. — Venation and costal membrane dark-brown. Third ulnar area $0.7 \times$ as long as 1st one; 4th ulnar area $0.67 \times$ as long as radial area. Third apical area $0.66 \times$ as long as 4th one. Traces of coloration of transverse vein present.

Operculum. — Dark, nearly black. Smaller than in *P. faticina*; acutely pointed. Meracanthus dark coloured, size as in *P. faticina*.

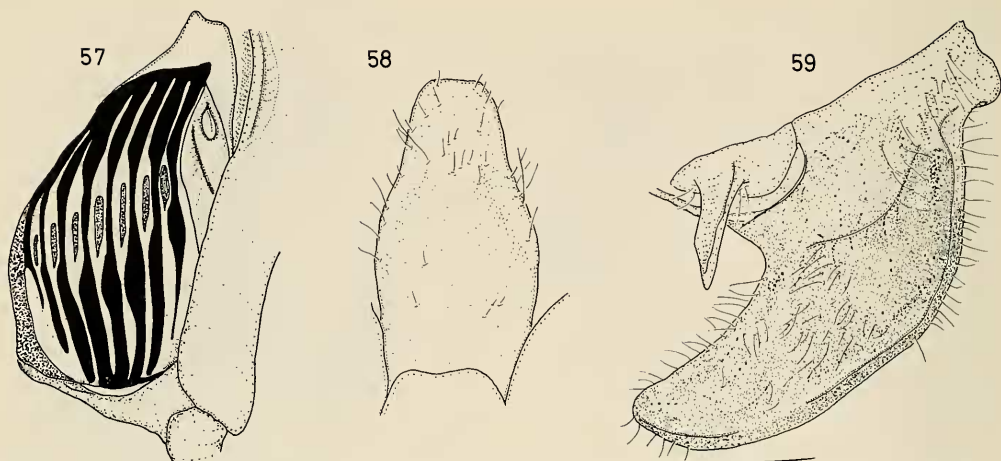


Figs. 51—56. *Prasia nigropercula*, holotype. 51, pygofer, lateral view; 52, apex of aedeagal appendage process; 53, pygofer, ventrolateral view; 54, uncus, ventral view; 55, clasper, lateral view; 56, edge of sternite 1, ventral view.

Abdomen. — Dark-brown coloured with red hindmargins, along tergites as well as sternites. Tergite 1 for its greater part covered by metanotum. Sternite 1 apically somewhat smaller and laterally more concave than in *P. faticina*; median protuberance more conspicuous. Sternite 8 hardly pointed apically.

Tymbals. — Seven long ridges alternating with an equal number of short medial ridges.

Genitalia. — Caudal dorsal beak almost in a straight line with dorsal part of pygofer. Lateral lobes smaller than in *P. faticina*. Median uncus part above aedeagus broad. Claspers slender, somewhat elongate, hardly curved and apically



Figs. 57—59. *Prasia nigropercula*, holotype. 57, tymbal, lateral view; 58, sternite 8, ventral view; 59, operculum, ventral view.

rounded. Aedeagus extremely slender (apex mutilated). Adjustment of aedeagus situated less than halfway the pygofer. Processes of dorsal aedeagal appendage apically rounded.

Measurements of the holotype: body length: 23.4 mm; width of pronotum collar: 8.4 mm; tegmen length: 28.4 mm.

Distribution. — Muna (Raha) (fig. 7).

Type. — Indonesia, Muna: "Raha/Moena/Ile-Celebes" (handwritten), 1 ♂ (BIN).

Etymology. — The species is named after its nearly black coloured operculum, that contrasts with the pale underside of the body.

Remarks.

Beside its conspicuous coloration, the species is very distinct within the genus because of some characteristic details in the genitalia structures, viz. the shape of the claspers and the adjustment of the aedeagus, as well as the apically rounded processes of the aedeagal appendage. The shape of the clasper, though, is reminiscent of that of *P. sarasinorum*.

A female from Kandari (= Kendari?), which has probably lost the natural coloration, has about the pronotum collar shape of *P. nigropercula*. Since the material is too scanty, this specimen is still regarded as unidentified.

Prasia princeps Distant, 1888 (figs. 7, 60—75, 90, 91)

Prasia princeps Distant, 1888: 325; Distant, 1892: xiv, 145, pl. 13, figs. 14, 14a, b; Jacobi, 1903: 12; Distant, 1906: 184 (equals *Drepanopsaltria* (?) *prin-*

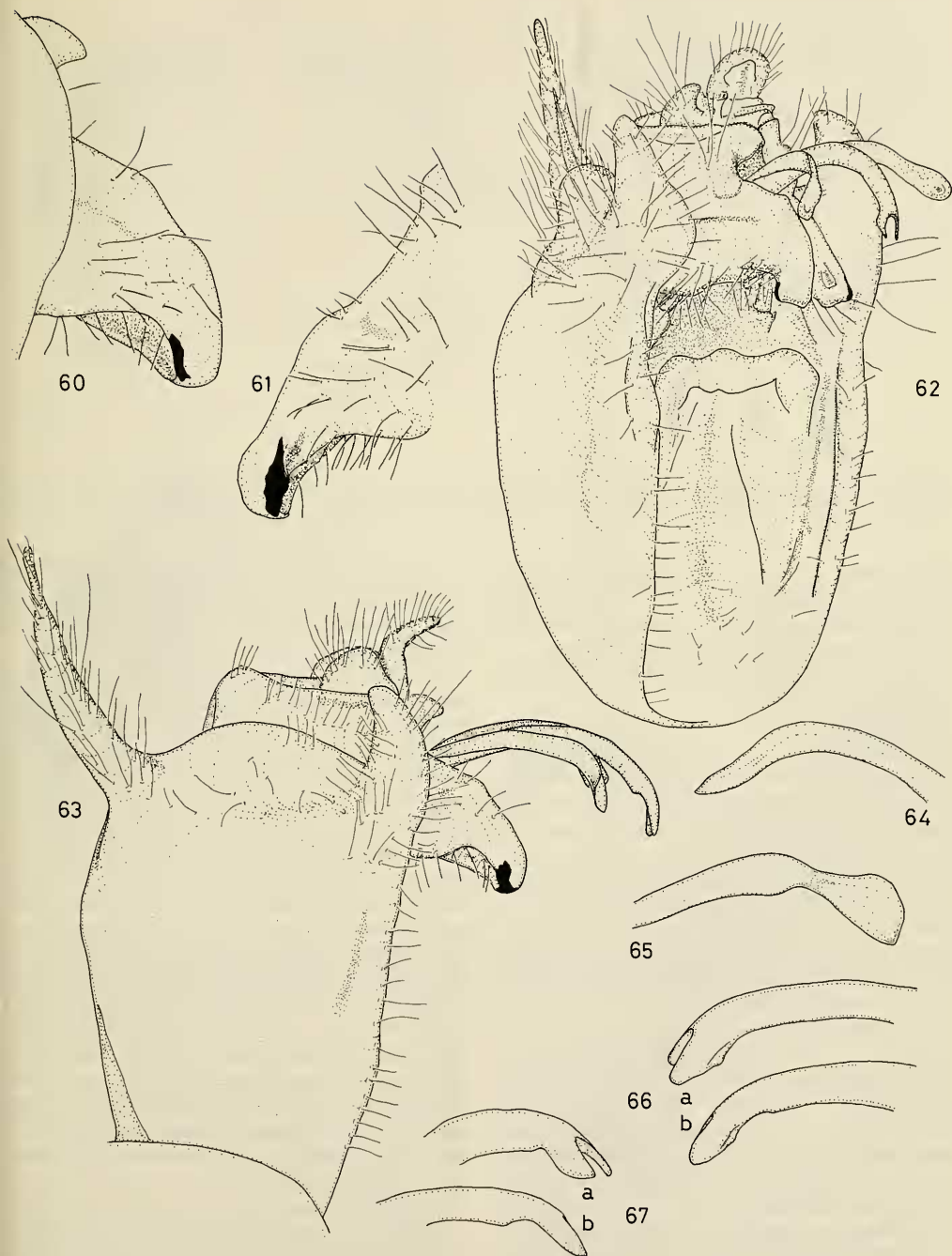
ceps Bredd.); Kato, 1932: 189; Metcalf, 1963: 425. *Drepanopsaltria* (?) *princeps*; Breddin, 1901: 28, 113. *Drepanopsaltria princeps*; Jacobi, 1903: 10.

Description.

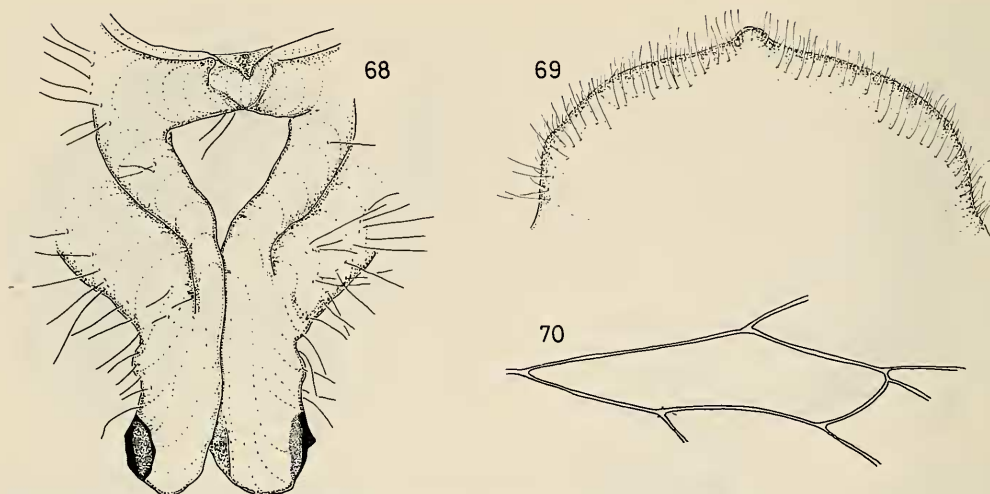
Body olivaceous-green to green, sometimes with a brownish tinge. Head darker coloured. Body ventrally somewhat paler than dorsally. Head and pronotum together $0.96\text{--}1.22 \times$ as long as meso- and metanotum together. Female thorax and head together $0.81\text{--}1.02 \times$ as long as abdomen; male $0.69\text{--}0.75 \times$ as long. Greatest width of the body at the height of the 3rd abdominal segment.

Head. — Dorsally olivaceous with brown between eyes. Eyes large, $0.67\text{--}0.88 \times$ as wide as vertex width between eyes. Ocelli raised. Distance between lateral ocelli $0.86\text{--}1.53 \times$ distance between eye and lateral ocellus. Head $1.63\text{--}1.98 \times$ as long as width of vertex between eyes. Head $2.35\text{--}2.76 \times$ as wide as vertex between eyes. Postclypeus in ventral view strongly laterally compressed, olivaceous- to light-brown coloured. Transverse ridges weak, concolorous. Rostrum with black apex reaching intermediate coxae.

Thorax. — Central fascia on pronotum collar obsolete; pronotum collar broadly rounded, $1.84\text{--}2.11 \times$ as wide as width of head including eyes. Fissures on pronotum undeeep. A lateral brown line running from each eye backwards, almost reaching latero-proximal corner of pronotum collar. Mesonotum with four speckled obconical areas at proximal margin; the para-



Figs. 60—67. *Prasia princeps*, ♂. 60, 61, clasper, lateral view, 60, Menado, 61, Toli-Toli; 62, 63, pygofer, ventro-lateral (62) and lateral (63) view, Tangarie-Menado; 64, 65, apex of aedeagal appendage process, 64, Toli-Toli, 65, Menado; 66, apex of aedeagus, 66a, laterodorsal view, 66b, lateral view, Toli-Toli; 67, apex of aedeagus, 67a, laterodorsal view, 67b, lateral view, Menado.



Figs. 68—70. *Prasias princeps*: 68, 69, ♂; 70, ♀. 68, uncus, ventral view, Menado; 69, edge of sternite 1, ventral view, Menado; 70, 3rd ulnar area of right tegmen, Toli-Toli.

median areas being half as long as the lateral ones, whose length is about $3/4$ of the disk. Cruciform elevation fairly flattened. Metanotum just extending from below mesonotum.

Legs. — Concolorous, except fore tibiae and tarsi, which are brownish.

♂. Tegmina and wings. — Tegmina very pale-ochraceous or olivaceous, subhyaline. Costal membrane olivaceous. Extreme base red. Apical areas of tegmen long, 4th, 5th and 6th longest, 1st, 3rd and 7th shorter, 2nd and 8th shortest. Third apical area $0.58\text{--}0.69 \times$ as long as 4th one. Third ulnar area (sometimes shaped as in fig. 70) $0.7\text{--}0.87 \times$ as long as 1st one; 4th ulnar area $0.63\text{--}0.76 \times$ as long as radial area. Hardly any indication of a corial fold, nor of any remnant of a transverse vein extending from the 2nd ulnar area into the 3rd.

Wings pale hyaline, venation ochraceous, extreme base red. Cu_2 and A_1 veins fused just before the wing border.

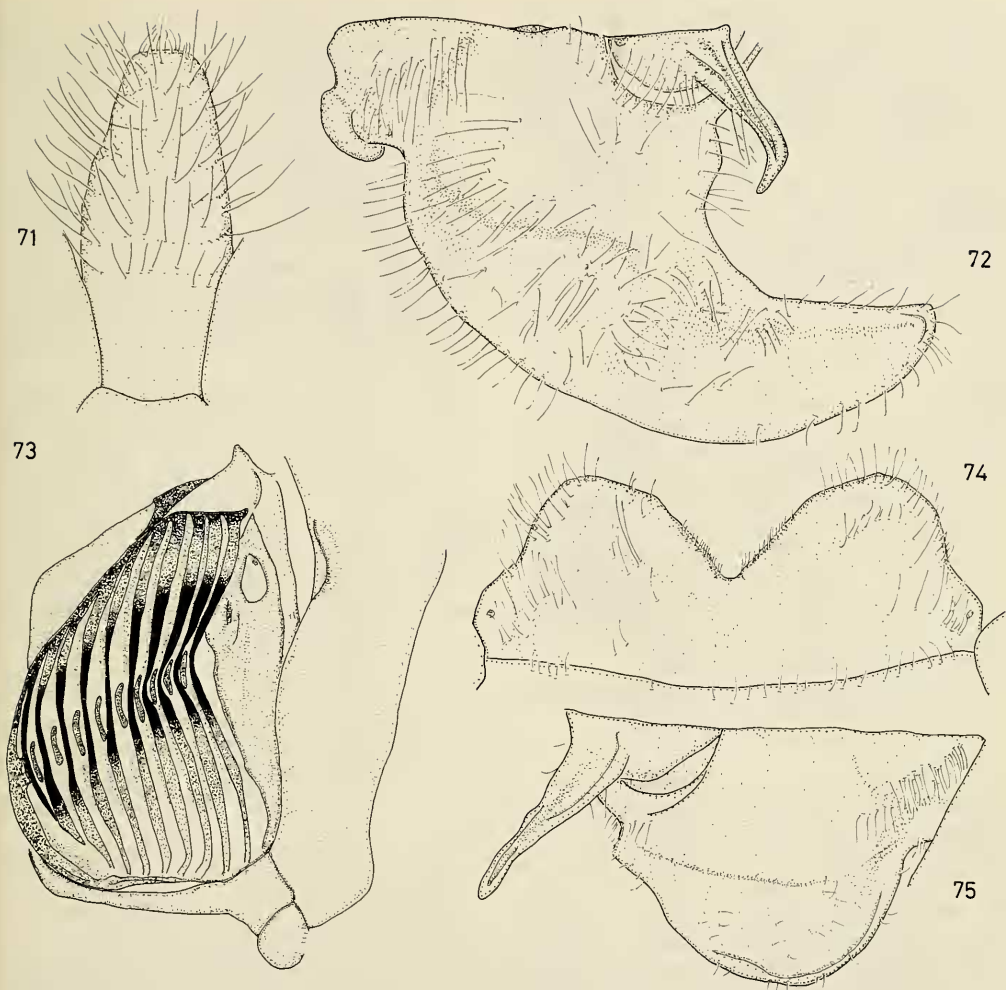
Operculum. — Large, sickle-shaped, broad and pointed, just reaching or reaching just beyond sternite 2, concolorous. Meracanthus short and slender, not reaching beyond proximal part of operculum.

Abdomen. — Sometimes irregularly speckled with light patches, fresh specimens unicolorous. Tergite 1 trapezoid with sharp proximal and obtuse distal angles. Hindmargins of tergites orange-brown coloured. Distal edge of sternite 1 convex with a weak median bulb. Sternite 8 apically slightly to hardly pointed.

Tymbals. — Medium-sized and consisting of 9 (sometimes 10 and one male from Toli-Toli 8) long ridges alternating with short medial brown ridges in a very regular pattern.

Genitalia. — Lateral lobes of the pygofer in lateral view swollen and pointed, in ventral view swollen, apically slender and pointed. Caudal dorsal beak sometimes at an angle of at most 40° with dorsal part of pygofer. Claspers in lateral view broad, sometimes more narrowly shaped, somewhat elongate, apically curved and pointed; in dorsal view median part slender and apically swollen. Uncus consisting of two lateral, slightly swollen parts and mostly of a medial protuberance. Greater part of the aedeagus slender. Dorsal aedeagal appendage originating at about $2/3$ of the aedeagal length, and split at about $2/3$ of its own length in two slender processes, which are apically rounded or pointed. These processes not reaching apex of aedeagus. The rounded ones mostly slightly constricted subapically. Apex of aedeagus consisting of two lateral slender, or somewhat broader lobes, that are dentate apically. Adjustment of aedeagus situated halfway the pygofer.

♀. Tegmina and wings. — Tegmina pale-ochraceous or olivaceous, subhyaline. Costal membrane white. Extreme base red. Apical areas as in males. Third apical area $0.61\text{--}0.71 \times$ as long as 4th one. Third ulnar area (sometimes shaped as in fig. 70) $0.59\text{--}0.76 \times$ as long as 1st one; 4th ulnar area $0.67\text{--}0.77 \times$ as long as radial area. Hardly any indication of the corial



Figs. 71—75. *Prasia princeps*; 71—73, ♂; 74, 75, ♀. 71, sternite 8, ventral view, Menado; 72, operculum, ventral view, Minahassa; 73, tymbal, lateral view, Menado; 74, sternite 7, ventral view, Menado; 75, operculum, ventral view, Woloan-Menado.

fold, nor of any remnant of a transverse vein extending from the 2nd ulnar area into the 3rd.

Wings pale-hyaline, venation ochraceous, extreme base pink. Cu_2 and A_1 fused in nearly all specimens (including the type!) just before the wing border.

Operculum. — Short, more or less broadly rounded; distal part sometimes shorter than the basal part. Meracanthus reaching just beyond posterior margin of operculum.

Abdomen. — Olivaceous, greenish, sometimes slightly brownish tinged, fresh specimens green. Broad tergites, weakly carinate medially.

Caudal dorsal beak slender. Ovipositor sheath just reaching apex of caudal dorsal beak. Sternite 7 as in fig. 74.

Measurements based upon all specimens available: body length ♂: 24.6—28.9 mm, $\bar{x}$ = 27.3, σ = 1.016, ♀: 25.9—30.2 mm, $\bar{x}$ = 28.2, σ = 1.394; width of pronotum collar ♂: 8.0—9.5 mm, $\bar{x}$ = 9.0, σ = 0.392, ♀: 9.3—11.3 mm, $\bar{x}$ = 10.2, σ = 0.583; tegmen length ♂: 32—36.7 mm, $\bar{x}$ = 34.5, σ = 1.223, ♀: 39.1—41.9 mm, $\bar{x}$ = 40.6, σ = 0.819.

Distribution. — North Sulawesi (fig. 7).

Material examined.— Indonesia, Sulawesi: Dumoga-Bone N.P., Sulawesi Utara, Project Wallace 1985, st. 4, lowland rainforest near base camp, 29.i—2.ii.1985, at M.V. light, J. P. Duffels & J. D. Holloway collectors, 1 ♀ (MZB), same locality and collectors but with, st. 7, lowland rainforest at 120 m from st. 4, 1—2.ii.1985, at M.V. light, 1 ♀ (ZMA), 1 ♀ (MZB), same locality and collectors but with, st. 9, subcamp 1, 4—8.ii.1985, at light, 3 ♂ (ZMA), 4 ♂ (MZB); Menado, van Braeckel, *Prasia culta* Dist., det. Lallemant 1930, 3 ♂ (BIN); Minahassa, "Minahassa/Celebes" (handwritten), "Syntype" (round label, blue edged, print), "Distant Coll./1911—383" (print), 1 ♀, holotype of *Prasia princeps* (BM); Minahassa, *Prasia princeps* Dist., coll. Dr. D. MacGillavry, 1 ♀ (ZMA); Minahassa, V. d. Bergh, *Prasia faticina* Stål, coll. Dr. D. MacGillavry, 1 ♂ (ZMA); Tanggarie-Menado, Van Braeckel, *Prasia culta* Distant, det. Lallemant 1930, 1 ♂ (BIN); Toli-Toli, Nord-Celebes, Nov.-Dez. 1895, H. Fruhstorfer, 1 ♂ (CNMW), same data but with, 1909—21, 1 ♀ (BM), same data but with *Prasia faticina* Dist. 145.vii.14 (= Distant, 1892: 145, pl. 7, fig. 14), 1 ♂ (MHNG), same data but with, *Prasia princeps* dist. 145.xiii.14 (= Distant, 1892: 145, pl. 13, fig. 14), 1 ♀ (MHNG); Tondano-Menado, Van Braeckel, *Prasia culta* Distant, det. Lallemant, 1 ♂ (BIN); Woloan-Menado, 3 ♂ 1 ♀ (BIN).

Specimens without further precision of the locality: Celebes, 1 ♂ BIN; India Archipel, 1 ♀ CNMW.

Remarks.

At first there has been some hesitation whether or not to attribute a separate taxonomic position to the specimens from Toli-Toli. Whilst the specimens from Menado display a broad clasper, a very slender apex of the aedeagus and apically rounded processes of the aedeagal appendage (with the subapical constriction), the Toli-Toli specimens possess a narrow clasper, a broader shaped apex of the aedeagus and pointed processes of the aedeagal appendage.

Recent collecting in the Dumoga-Bone N.P. in Sulawesi Utara (during the Project Wallace Expedition) by Dr. Duffels and Dr. Holloway (Commonwealth Institute of Entomology, London) provided new material that displayed the Menado-type of genitalia as well as a mixture of the Menado- and the Toli-Toli-type. More material from Toli-Toli must prove the stability of its combination of genital characters in order to reconsider a separate taxonomic position.

Prasia senilirata n. sp.

(figs. 7, 76—85)

As *Prasia senilirata* resembles *P. princeps* in general appearance, mainly because of its size and the olivaceous-green colouring of the body,

a differential description is presented based upon the male holotype. Due to its large size the magnification ratio's of all drawings of *P. senilirata* are 0.75 × those used for the other species.

Description of the male.

Large species. Body colour (fresh) olivaceous-green. Head a little darker coloured. Body ventrally somewhat paler than dorsally. Head and pronotum 1.09 × as long as meso- and metanotum together. Thorax and head together 0.76 × as long as abdomen. Greatest width of the body at the height of the 3rd abdominal segment.

Head. — Dark-green with brown between the eyes. Eyes 0.86 × as wide as vertex width between eyes. Distance between lateral ocelli 1.57 × distance between lateral ocellus and eye. Head 2.07 × as long as and 2.72 × as wide as width of vertex between eyes. Postclypeus dark-coloured.

Thorax. — Pronotum collar 1.94 × as wide as head including eyes. Dark line running from the eye hindwards very short.

Legs. — As in *P. princeps*.

Tegmina and wings. — Coloration as in *P. princeps* (left tegmen of holotype has 7 apical areas). Third apical area 0.7 × as long as the 4th one. Third ulnar area 0.83 × as long as the 1st one; 4th ulnar area 0.71 × as long as the radial area.

Coloration of wings as in *P. princeps*. Cu₂ and A₁ veins do not fuse.

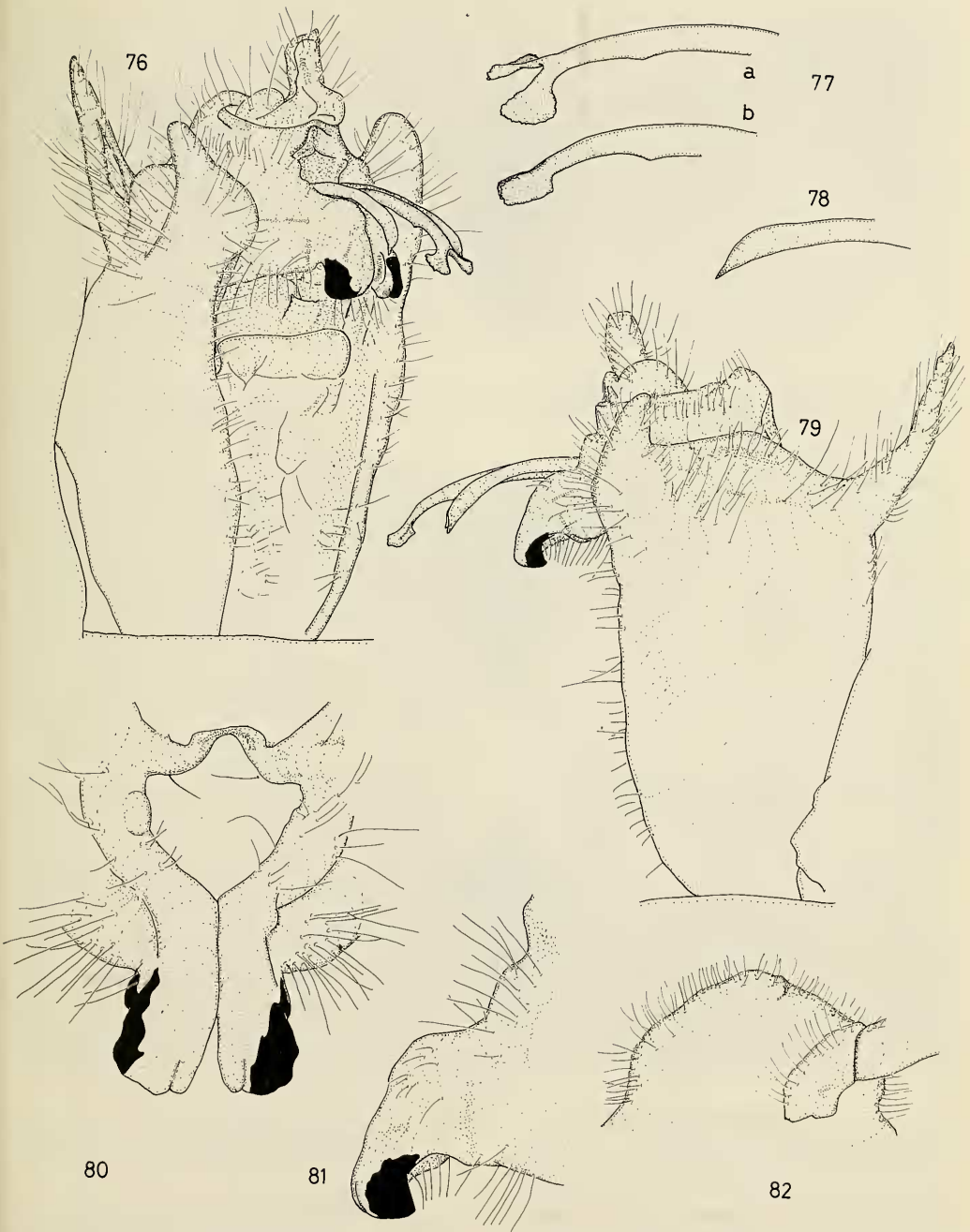
Operculum. — Relatively not as large and broad as in *P. princeps*; concolorous.

Abdomen. — Coloration as in olivaceous-green *P. princeps* specimens. Distal edge of sternite 1 smaller and far less bulbed than in *P. princeps*. Sternite 8 weakly pointed.

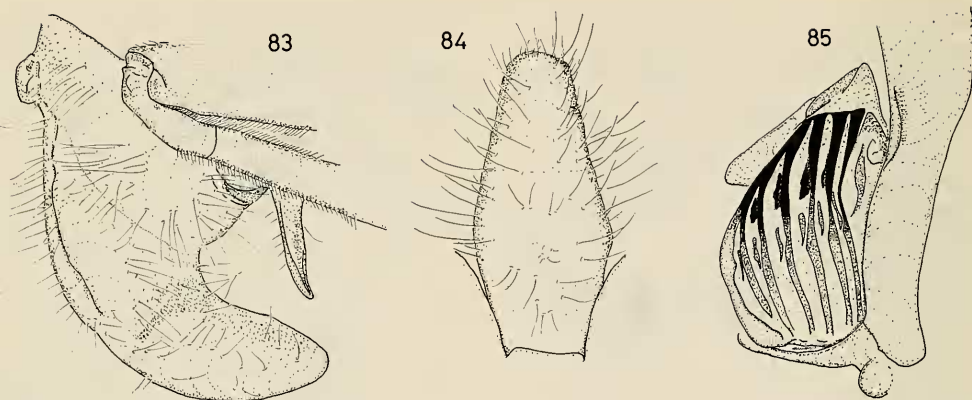
Tymbals. — Relatively small, consisting of 6 pair of long ridges alternating with short ridges. Upper half of the tymbal shaded with black above the small ridges.

Genitalia. — Lateral lobes less swollen than in *P. princeps*. Caudal dorsal beak at a very small angle with dorsal part of the pygofer. Clasper more elongate than in *P. princeps*. Median uncus part very slender, without protuberance. Aedeagus slender. Processes of dorsal aedeagal appendage apically pointed. Apex of aedeagus with two broadened flaps, that have a slight curvature.

Measurements of the holotype: body length: 29.7 mm; width of pronotum collar: 9.9 mm; tegmen length: 36.2 mm.



Figs. 76—82. *Prasia senilirata*, holotype. 76, pygofer, ventrolateral view; 77, apex of aedeagus, 77a, laterodorsal view, 77b, lateral view; 78, apex of aedeagal appendage process; 79, pygofer, lateral view; 80, uncus, ventral view; 81 clasper, lateral view; 82, edge of sternite 1, ventral view.



Figs. 83—85. *Prasia senilirata*, holotype. 83, operculum, ventral view; 84, sternite 8, ventral view; 85, tymbal, lateral view.

Distribution. — The holotype is from Central Sulawesi (Lore Lindu National Park) (fig. 7).

Type. — Indonesia, Sulawesi: "Stat. 44/Lowland/rainforest/ML-light" (print), "Toke Pangana/700 m/4 km NE Gimpu/16.iii.1985/J. P. & M. J. Duffels" (print), "Indonesia/Sulawesi Tengah/Lore Lindu N.P." (print), 1 ♂ (ZMA).

Etymology. — "Senilirata" is derived from the Latin words "seni", meaning "each time six of" and "lirata", meaning "ridge made by a plough". The combination stands for the fact that the species has six long ridges on the tymbal, which is characteristic, not only within the genus, but also within the Oriental Prasiini as a whole.

Remarks.

The species is very distinct, not only for its low number of alternating ridges on the tymbal, but also for its peculiar shaped apex of the aedeagus. As for a possible female representative of the species the reader is referred to the remarks at the end of the description of *P. sarasinorum*.

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Figs. 86—88. General facies. 86, *Prasia faticina* ♂, paratype *P. culta*; 87, *Prasia faticina* ♀, holotype; 88, *Prasia sarasinorum* ♂, paratype Mapane surroundings.

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Figs. 89—91. General facies. 89, *Prasias nigropercula* ♂, holotype; 90, *Prasias princeps* ♂, Minahassa; 91, *Prasias princeps* ♀, holotype.

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